

## WHAT IS CLAIMED IS

1. Compact night vision device including an objective (9) that receives  
2 light from the scene being viewed along a first direction, a light  
5 intensifier (6), an eyepiece (10) that outputs an intensified image along  
a second direction substantially parallel to said first direction, and  
5 means of guidance of the light rays between said objective and said  
output of the eyepiece, this guidance being achieved notably along an  
optical deflection plane that intersects said first and second directions  
10 and contains the longitudinal axis of said light intensifier (6), wherein  
said light intensifier (6) assures a 180° rotation of the image between its  
entry and exit, and said means of guidance include 4 optical  
deflections, one in the objective and the three others in the eyepiece.
2. Device according to claim 1, wherein said eyepiece produces a single  
15 intermediate image between its entry face (45) and its exit face (43).
3. Device according to one of previous claims, wherein said light  
intensifier (6) is a standard intensifier with inverter fibers.
4. Device according to one of previous claims, wherein said eyepiece  
includes a combiner (11) that transmits light received directly from the  
20 scene in said second direction, superimposing it on said intensified  
image.
5. Device according to claim 4, wherein in said combiner the deflection  
angle  $\alpha$  between the median ray (34) of the central field and the  
25 deflection plane (58) depends on the optical index of the combiner and  
the half-field  $\theta$  of the device.
6. Device according to claim 4, wherein in said combiner (52) said  
deflection angle  $\alpha$  between the median ray (34) of the central field and  
the deflection plane (58) depends on the optical index  $n$  of the  
30 combiner and the half-field  $\theta$  of the device according to the following  
equation, expressed in radians:

DECLASSIFIED BY: [REDACTED] DATE: [REDACTED]  
**CONFIDENTIAL DEFENSE**

12

$$4\alpha = \pi + 2\text{Arcsin}\left(\frac{\sin\theta}{n}\right)$$

- ✓ 7. Device according to one of claims 4 to 6, wherein said deflection angle  $\alpha$  between the median ray (34) of the central field and the deflection plane (58) of the combiner (52) is strictly greater than  $45^\circ$ .
- ✓ 5) 8. Device according to claim 7, wherein said combiner receives light directly from the scene through a first entry face (53) and receives the intensified image through a second entry face (54) and includes a lens (62) of which one face coincides with said second entry face (54) of the combiner and of which the other face is spherical.
- 10 9. Pair of compact night vision binoculars including two devices according to one of previous claims.

ADD  
A4

DECLASSIFIED BY: [REDACTED] DATE: [REDACTED]  
**CONFIDENTIAL DEFENSE**